

Sanicula marilandica L. Hitchcock et al. (op. cit. 1961) note the plant is known from "e. B.C., n. Idaho and probably extreme n.e. Wash." in our area. This confirms the species occurrence in Wash. *Layser 1667* (WS), NE $\frac{1}{4}$ Sec. 3, T40N, R43E., Pend Oreille Co.—EARLE F. LAYSER, Colville, Natl. Forest, Colville, Wash. 99114.

REVIEWS

Wild Flowers of the United States. By H. W. RICKETT. Volume 5, The North-western States, 2 pts., 666 pp., illus. McGraw-Hill Book Co., New York. \$57.50.

The most recent volume of this much-heralded series encompasses the North-western States, which are rather curiously interpreted to include not only western Washington and Oregon, but "California southward to the deserts". The present volume (in two parts) is the fifth in the series to be issued; only the Rocky Mountain region remains to be covered. The rather sumptuous production has had the generous financial backing of the National Committee for the Wild Flowers of the United States, headed by Mrs. David Rockefeller. The "wild flowers" of the title are all herbaceous; woody plants are omitted. Cacti are only sparingly treated, and "unattractive plants with small green flowers unlikely to attract the amateur" are also omitted. Even after this pruning, approximately 3,000 species are mentioned in the work.

The first pages of part one deal with such topics as the names of wild flowers; the morphology of flowers, fruits, and vegetative parts; and plant identification. There is a brief section aimed at discouraging amateurs from transplanting wildlings to their gardens. Next are a guide to the families represented in the book and an illustrated glossary. The main portion of the work is devoted to a family-by-family account of "northwestern" wild flowers, beginning with the Liliaceae. Each family is described very briefly, and there is a key-like guide to its genera. Following this is a generic account of the family, which is accompanied by color photographs illustrating various of the species that are discussed in the text. The species are very simply and briefly described and technical terminology is kept to a minimum.

Because I am a professional systematist, it is difficult to give a balanced appraisal of a work designed for the amateur. Not so many years ago, however, my only means of identifying wild flowers was by leafing through the few "popular" books available for western species and by linking drawings or photographs with the specimens in hand. Surely Rickett's series has provided a very elegant and—unfortunately—expensive means for interested amateurs to do the same thing almost anywhere in the United States. Any publication that enhances public interest in the native flora is to be applauded.

Nevertheless, the two parts covering most of the immediate Pacific Coast of the United States are not without deficiencies, botanical and otherwise. The composition and overall artistic quality of the photographs range from excellent to very poor, although in general the color rendition is good (a notable exception is the lurid photograph of *Centranthus ruber*). Examples of photographs of doubtful utility for the amateur are those of *Thalictrum occidentale*, *Romanzoffia suksdorfii*, and *Anthemis arvensis*, which illustrate little of assistance in naming these plants and are fulsome as well. A scale is unfortunately missing from all photographs, so that the flower of *Myosurus minimus* (which qualifies as one of those omittable "unattractive plants with small green flowers") is seemingly equal in size to that of *Nuphar polysepala*. I also question the desirability of illustrating several species of a genus when the distinguishing characters of the rather similar species are not evident from the photographs. For example, five yellow-flowered leafy-stemmed

oxalises are illustrated; I think it is virtually impossible to tell one from the other by the photographs. In this instance (to paraphrase a local politician), when you've seen one, you've seen 'em all. Also, I find it hard to believe that the photograph of "*Oxalis repens*" (listed as such, though the text states that "the correct name of this species is *O. corniculata*") is really that species; the size of the flowers relative to the leaves is excessive. I also doubt that the plethora of photographs of blue delphiniums will aid in their identification. Had photographs been used more economically, the price of the book accordingly could have been reduced. The book would be more easily used if a page reference to the textual discussion of each illustrated species were listed in the legend for each photograph, since in many instances the photographs and the description are separated by several pages. Another problem associated with the illustrations is the distribution of photographs of one genus into two or more plates where they are mixed with other genera; for example, *Campanula* appears in two plates, both of which also illustrate genera of other families. Likewise, the species of *Convolvulus* are relegated to two plates, which they occupy with other genera. Such an arrangement makes comparisons within a genus difficult. The concordance in detail between the text discussions and the illustrations generally is good. However, *Blennosperma nanum* is described as having yellow rays, which it typically does, but the single plant illustrated is the rather rare white-rayed form!

The photographs are mostly ones that have been taken in nature; however, the unesthetic courtyard of the Life Sciences Building on the Berkeley campus disfigures the background of at least one photograph (a potted *Limnanthes gracilis*) and one somehow suspects that the University of Washington greenhouse lurks behind the cloth backdrop to *Streptanthus glandulosus*. The fact that the locale for some of the photographs is not within the geographic area circumscribed by the book's title is indicated by an occasional unexpected fellow-traveller that appears in the photographs; for example, the eastern *Orontium aquaticum* ornaments the illustration of *Menyanthes trifoliata*.

The accuracy of identification seems to be quite good, though my colleagues have pointed out a few bloopers. California's pre-eminent weed specialist, T. C. Fuller, suggests that the illustration labeled *Centaurea jacea* is more likely that of *C. cyaneus*; that the illustration of *C. solstitialis* is really *C. melitensis* and vice versa; that the photograph labeled *Cirsium occidentale* is one of *C. pastoris*; and that the *Cirsium edule* is *C. nutans*. W. F. Hinton insists that *Eriogonum pyrolae-folium* is really *Calyptidium umbellatum*. R. C. Bacigalupi notes that the illustrations of *Lithophragma affine* and *L. parviflorum* are more correctly *L. heterophylla* and *L. tenella* respectively, and that *Saxifraga occidentalis* should be labeled *S. ferruginea*. His concern over the identification of *Downingia elegans* is understandable; it is *D. bacigalupii*.

I have also noted a few errors of fact. For example, *Bensonia* (= *Bensoniella*) *oregana* is said to grow "only in the mountains of southwestern Oregon". This mistake is understandable; although the genus has long been known from California, it was not included in Munz' 1959 *A California Flora* (although it did appear in the later Supplement). The occurrence of *Anemopsis californica* in southern Oregon is also overlooked. Another problem is the lack of an index at the end of part one, and in the index in part 2 there is no indication which part is referred to by the pagination.

Many of the drawbacks pointed out in the preceding discussion will not reduce the general utility of the work to the amateur audience for which it is intended. I question how widely such an expensive book will be used, although I understand that a series of smaller, less costly books will be abstracted from the present more comprehensive volume. All in all, this publication is an impressive work, a pleasure to the eye, and it should go a long way toward stimulating an interest in wild flowers on the part of the residents of the Far West who have yet fully to appreciate the riches of the natural world around them.—ROBERT ORNDUFF, Department of Botany, University of California, Berkeley 94720.